



March 31, 2016

TO: JD Kehrman, City Manager

FROM: Eric McPeak, Local Manager (Alliance Water Resources)

RE: **Emergency Purchase**

Distribution System

Water Tower Monitoring and Alarm System

The City Water Distribution System is served by three elevated water towers. Each tower currently has a level monitor that transmits tower levels to the water treatment plant in real time. The tower levels are monitored manually at the water treatment plant. The requested equipment will monitor the tower levels and provide warnings based on tower level parameters. The warning alarm system would call, text and email selected personnel if tower levels breach preset parameters. The City currently has a similar system installed at the sewer pump stations. AWR would like to stay with the same brand of equipment that is currently installed at those locations. The sole source vendor for the RACO equipment is REP Incorporated. The quote includes equipment, installation and a two year cellular service agreement.

Quotations:

REP Incorporated	\$ 12,217.00
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At this time, AWR is requesting approval to purchase said RACO Alarm System from REP Inc. in the amount of \$12,217.00. These items are not included in the 2016 Capital Budget Outlay.

If you have any questions, please contact me.

Eric McPeak

Alliance Water Resources

Cc: Gary Johnson

REP R.E. Pedrotti Co., Inc.

Instrumentation, Controls & Computer Systems

5855 BEVERLY AVE • SUITE A • MISSION, KS 66202

(913) 677-3366 FAX (913) 677-3460

www.repedrotti.com

March 29, 2016

City of Nevada WTP
110 South Ash
Nevada, MO 64772

Reference: Nevada, MO – Tower Remote Alarm Monitoring
REP #: 2NEVMOC

Gentlemen,

The R. E. Pedrotti Company, Inc., is the "RACO and Phoenix Contact Authorized Representative and Integrator" for Missouri and Kansas.

The R. E. Pedrotti Company, Inc., is pleased to provide quotation for the above referenced project.

The RACO AlarmAgent will be integrated with the existing RTU and pressure transducer located at each tower site. The RACO AlarmAgent will monitor and provide actual tower level readings and provide web based alarm thresholds for notification and well as site power fail.

TOWER REMOTE ALARM MONITORING	
QTY	DESCRIPTION
3	RACO AlarmAgent Remote Alarm Units <ul style="list-style-type: none">• Nema 4 X Outdoor Enclosure• 2yr Real Time Notification and Monitoring• AC Powered with Battery Backup• Cellular Modem and Antenna• Secure Remote Web Reporting and Notification
3	Phoenix Contact Loop Powered Signal Isolators
1 lot	Installation, Wiring, Start-up, Training and Configuration
1 lot	Documentation and Shipping

TOTAL PRICE **\$ 12,217.00 ****

**All pricing is exclusive of any taxes. Terms Net 30.

Should you have any questions, please feel free to contact me.

Sincerely,
R. E. PEDROTTI COMPANY, INC.

Gary Moxley

ALARM AGENT[®] .COM



real-time data. remote access.
RACO reliability.

wireless rtu

features

- 1 Totally Wireless RTU**
Easy to install. Goes where landlines can't, with 98% availability across North America.
- 2 Reliable, Web-Based Communication**
Triple-redundant, secure website links WRTU with AlarmAgent.com system.
- 3 Secure, 24/7 Access**
Retrieve equipment and status info anytime, from any web-enabled device or by calling a toll-free number.
- 4 Robust Monitoring & Control Functionality**
Simple configuration through system templates. Integrates eight digital and two universal inputs, and two relay outputs. Receive status of all channels — including analog — in real-time.
- 5 Straightforward User Interface**
Immediate status updates for a number of functions: signal strength, transmission, local service registration, armed/disarmed, AC/battery, on/off.
- 6 Custom User Templates**
Easier configuration remotely or locally. Optimized for water and wastewater pump applications.
- 7 On-Demand Custom Reporting**
System alarm and status reports, including battery and charging/discharging status. Data exports with customizable ranges.
- 8 Flexible Alarm Notification & M2M Control**
Instant alarm notification by voice, SMS, pager and email. Ability to control locally connected devices.
- 9 Over-the-Air Firmware Updates**
Allows users to update their WRTUs remotely — no need for a field visit.



(WRTU shown at actual size)

**continuous monitoring
on-demand reporting
unequaled control**



***wireless, web-based alarm detection
and notification system from RACO
designed specifically for water and
wastewater pump applications***

Dependable, real-time alarm monitoring and detection. Highly customizable notification preferences. Around-the-clock status access from almost anywhere. Simple administration of WRTUs, preferences, users, reporting parameters and more.

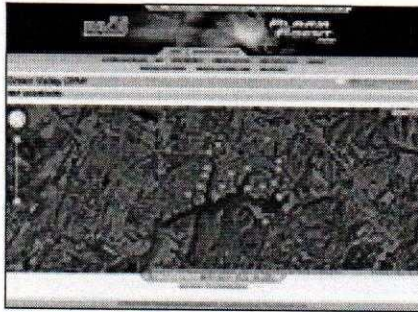
AlarmAgent.com's real-time report-generation capability is optimized for pump applications. Users can spot clogged or malfunctioning pumps in time to prevent a major disaster. And now users can receive RTU health reports, too.

AlarmAgent.com combines the latest in data communications and wireless technology with the reliability and reputation of RACO's half-century of industry experience.

web-based interface

monitor — View real-time system activity on a single, straightforward dashboard.

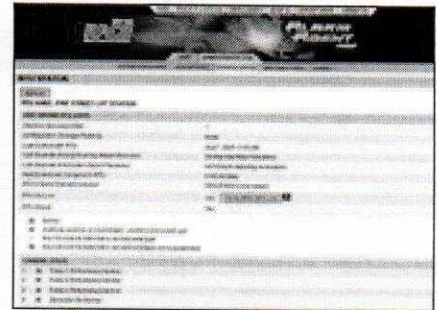
AlarmAgent.com's user-friendly, web-based interface puts everything you need right at your fingertips. The easy-to-use control panel now allows you to access real-time driven data, including WRTU status, digital channel open / close, analog measurements, pump status and arm / disarm notifications. You can still monitor alarm activity (across multiple stations) and details of alarm acknowledgment activity on demand.



Map-Based System Dashboard

Review and access alarms, power failures, communication problems and much more from a single screen.

Note: Google Maps™-based system dashboard shown.



WRTU Status Screen

Get the complete status of your WRTUs anytime.

report — Generate comprehensive reports on demand with just the click of a mouse.

AlarmAgent.com gives you immediate access to the custom reporting you need, so creating your reports is simple. We've made it easier than ever for you to generate comprehensive reports and pump station analyses. The collected data can be analyzed to optimize system efficiency for your operation. The on-screen interface provides customizable ranges, which allow you to view your data as you specify.

With a few simple clicks, your interface will produce your selected reports on demand, including digital reading, analog reading, pump runtime, pump GPM, pump starts ratio, pump station flow, pump performance, arm / disarm events, WRTU commands, real-time channel status, template reports and RTU health reports.

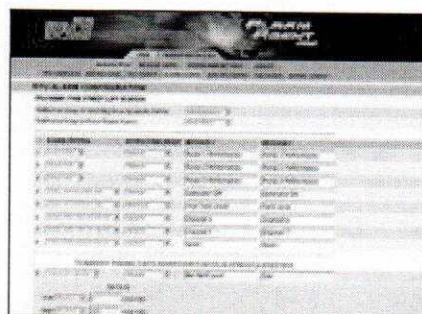
RTU ID	RTU Name	Signal Strength	Battery Status	Power Status
00001	00001	100%	Good	On
00002	00002	100%	Good	On
00003	00003	100%	Good	On
00004	00004	100%	Good	On
00005	00005	100%	Good	On
00006	00006	100%	Good	On
00007	00007	100%	Good	On
00008	00008	100%	Good	On
00009	00009	100%	Good	On
00010	00010	100%	Good	On
00011	00011	100%	Good	On
00012	00012	100%	Good	On
00013	00013	100%	Good	On
00014	00014	100%	Good	On
00015	00015	100%	Good	On
00016	00016	100%	Good	On
00017	00017	100%	Good	On
00018	00018	100%	Good	On
00019	00019	100%	Good	On
00020	00020	100%	Good	On

RTU Health Report Screen

View the unit's operation statistics, such as how long a system has been armed, signal strength, and power and battery status in one report.

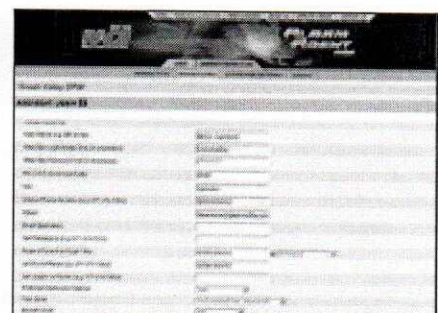
configure — Easily set and administrate the parameters of your system.

AlarmAgent.com provides extreme flexibility for custom configuration. Add stations. Change alarm parameters. Manage users and update their notification preferences. All this functionality and more is possible through clear instructions and drop-down menus that allow you to manage your selections in just seconds.



WRTU Channel Configuration Screen

Reconfigure channels in seconds.



Add / Edit User Screen

Easily change user permissions and preferences.

system options

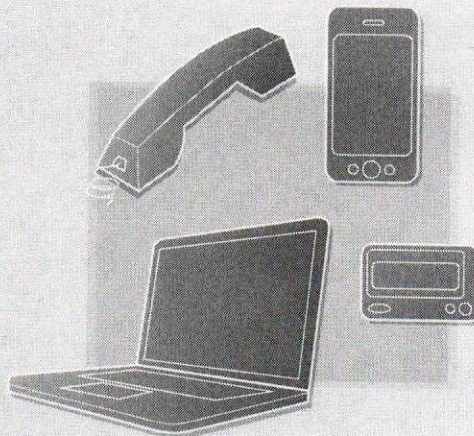
customizable notification

Today's technology allows people to be reachable wherever they go. That's why AlarmAgent.com's real-time notification features employ all of today's personal and business communications technology — to help you ensure, and document, that your alarms are received and responded to as quickly as possible.

In an alarm condition, AlarmAgent.com will send notification through cell phone, email, landline, pager or SMS.

Recipients may acknowledge these alarm notifications during voice calls or through email responses. Users can also proactively respond using a toll-free number or the AlarmAgent.com system dashboard.

On screen, administrators can easily add users, customize their methods of contact and determine the proper hierarchy for notification.



flexible service options

AlarmAgent.com provides several advantages over landline-based service, including lower cost, greater reliability, the ability to go where land-based systems can't and no cellular provider contract.

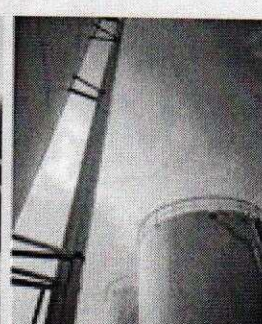
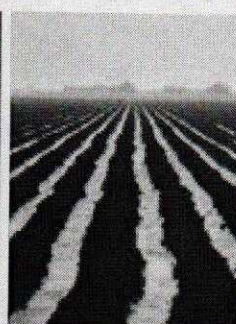
AlarmAgent.com service agreements are completely customizable. You can opt

to receive real-time, periodic or event-driven data. Your RACO representative will help you determine the right notification frequency for your needs — whether it's daily status reports or up-to-the-second updates. Select your preferred terms of one-year, two-year, three-year or monthly agreements.

A variety of templates make configuration easy. Just choose your application and configure digital input alarms, power failure alarms, analog alarms, reporting details and more.

wide-ranging applications

- Water & Waste
- Electric Utility
- Building Management
- HVAC & Refrigeration
- Equipment Rentals
- Agricultural
- Oil & Gas
- And More



learn more at www.AlarmAgent.com

Visit our website for detailed information such as a full interactive demo, engineering specifications, owner's manual, service agreements, helpful web links and more.

specifications

MODELS

Real-time AlarmAgent.com Wireless Remote Terminal Units (WRTUs) are offered in four different models:

AA-102DCRT AlarmAgent.com WRTU with NEMA 1 enclosure

AA-102DCORT AlarmAgent.com WRTU with open chassis

AA-102NEMART AlarmAgent.com WRTU with NEMA 4X enclosure and phantom antenna

ELECTRICAL

Eight Digital Inputs: For connection to dry (unpowered) contacts. Open circuit voltage 5 VDC; closed circuit current 2 mA DC.

Two Universal Signal Inputs:

Digital: Open circuit voltage 5 VDC; closed circuit current 2 mA DC.

Analog: 4–20 mA, single ended. Maximum voltage drop 2.5 VDC.

Resolution: 0.1%; absolute accuracy is 0.25%.

Two Relay Outputs: Normally open relays, 0.5-ampere @ 120 VAC

Scheduled Relay Operations: Relays can be configured to automatically open / close for time of day.

Manual Relay Operations: Manually turned off / on via the website.

M2M Control Operations: Wherever there is an unacknowledged alarm, relay will energize.

Battery Backup: 24 hours, 12 V @ 1.2 Amp hr

Power Management: System intelligently manages power during power failure.

Power Requirements:

User supplied. The WRTU operates on 12–24 VDC power input.

With 12 VDC input, current is 1-ampere peak, 200 mA average.

With 24 VDC input, current is 0.5-ampere peak, 100 mA average.

Battery Charging: Precision voltage controlled to maximize battery life and rapidly recharge the battery after power failure.

Power Failure: Automatic alarm for external power failure and low battery detection.

Power Consumption: 2 watts nominal

Solar Power: The WRTU is operable directly from a 13.6 VDC solar power unit. Average current is 175 mA or less.

Surge Protection: Digital inputs are opto-isolated and rated at 5,000 V.

Universal inputs are rated at 600 watts.

Power input is protected to 1,500 watts peak. The fuse is automatically reset.

PHYSICAL

Enclosure:

Open chassis: 9.6" H x 4.0" W x 2.44" D

NEMA 1 enclosure: 9.6" H x 4.35" W x 2.75" D

NEMA 4X enclosure: 11.5" H x 4.33" W x 5.5" D

Mounting Centers:

Open chassis: 3.5" x 5.9375"

NEMA 1 enclosure: 3.5" x 6.59375"

NEMA 4X enclosure: 4" x 8.75"

Weight:

Open chassis: 2.4 lbs. w/rubber duck antenna

NEMA 1 enclosure: 2.7 lbs. w/rubber duck antenna

NEMA 4X enclosure: 5.5 lbs. w/phantom antenna

ENVIRONMENTAL

Temperature Range:

Operating, -30–70° C (-22–158° F)

Storage, -40–85° C (-40–185° F)

Humidity: 0–95% non-condensing

COMMUNICATIONS

Real-time bi-directional WRTU communications are handled by the AlarmAgent.com secure server via the wireless cellular network. AlarmAgent.com features a built-in communication failure alarm and power failure alarm.

SYSTEM CONFIGURATION

The WRTU is configurable by two possible means: via dipswitch, or wirelessly via AlarmAgent.com.

By selecting from four templates that are optimized for duplex pump stations with or without totalizer and triplex pump stations with or without totalizer, rapid installation and error-proof startup are virtually guaranteed. Three additional templates are available for more general applications.

ALARM AND SYSTEM MESSAGES

User-defined alarm and system messages are delivered via voice calls, SMS messages, alphanumeric pagers and email to an unlimited number of user-specified destinations. Authorized personnel acknowledge alarms during voice calls via a toll-free number, email or through the AlarmAgent.com website.

OPERATOR INTERFACE

The AlarmAgent.com WRTU includes pushbuttons to turn the unit on or off, to arm or disarm the unit, to cause a special test call to be generated, and a digital input "accept" function to assist in the setup of the WRTU.

LEDs are used extensively throughout to indicate the status of the following subsystems: AC power status, battery status, network service availability, a 10-segment LED bar graph for service signal strength, actively transmitting, test report, customer account status, template setting status, individual input channel state, individual relay output state, and if any channels have exceeded their daily limit of transmissions.

WARRANTY

Three-year parts and labor warranty, FOB factory, Emeryville, Calif.

FIRMWARE UPGRADES

AlarmAgent.com WRTU firmware is over-the-air upgradeable.

For information on accessories, go to alarmagent.com/products_services.htm

why RACO?

Since 1948, RACO has built a reputation for reliability, innovation and customer service. We look for the latest breakthroughs and insist that they meet our standards before introducing them to our customers.

We are proud to put our name on AlarmAgent.com. It joins our complete range of alarm detection and notification systems that are ideal for a variety of applications. From the latest innovations to the trusted industry standards, RACO has a solution to fit your needs.

GO TO WWW.ALARMAGENT.COM TO ACCESS MORE INFORMATION

- Product Info
- Order Online
- Manual
- Tech Support

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REMOTE ALARMS AND CONTROLS

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RACO Manufacturing and Engineering Co.
Literature Code #190
Printed 2.5M 9/13